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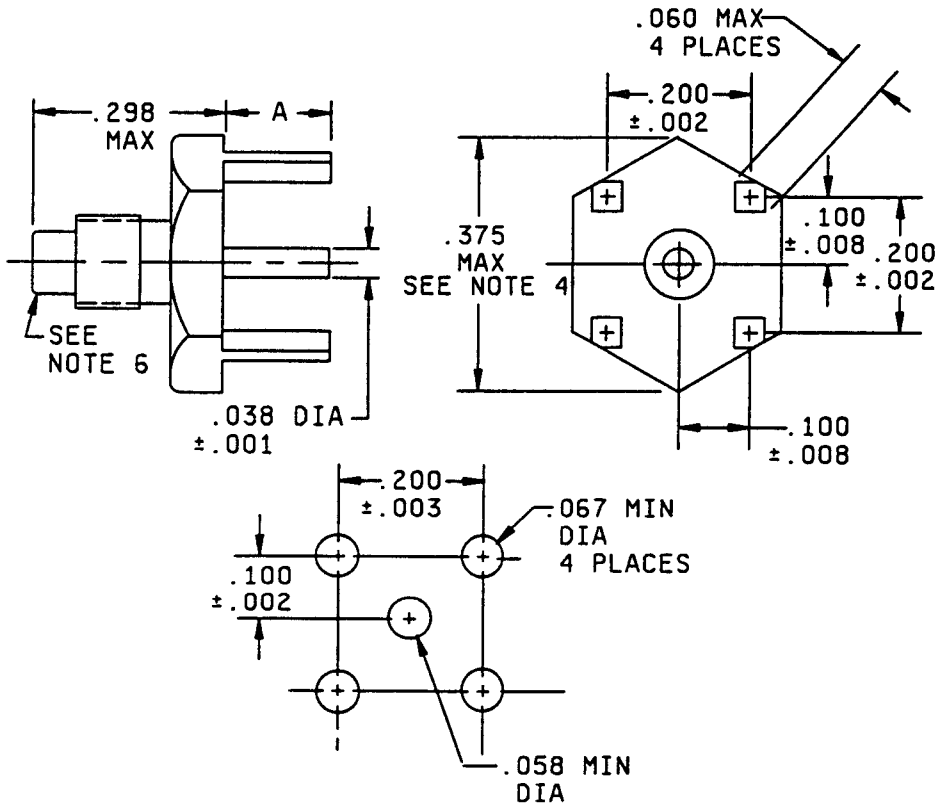
INCH-POUND  
MIL-PRF-39012/133A  
15 November 1993  
SUPERSEDING  
MIL-C-39012/133  
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# PERFORMANCE SPECIFICATION SHEET

## CONNECTORS, RECEPTACLE, ELECTRICAL, COAXIAL, RADIO FREQUENCY, SERIES SMC, PRINTED CIRCUIT BOARD MOUNT

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-PRF-39012.



## RECOMMENDED MOUNTING HOLE CONFIGURATION

FIGURE 1. General configuration.

Dash number	Dimension A
0001 (see note 5)	.155 (3.94) $\pm$ .010 (0.25)
0002 (see note 5)	.125 (3.18) $\pm$ .010 (0.25)
0003 (see note 5)	.093 (2.36) $\pm$ .010 (0.25)
0004 (see note 7)	.155 (3.94) $\pm$ .010 (0.25)
0005 (see note 7)	.125 (3.18) $\pm$ .010 (0.25)
0006 (see note 7)	.093 (2.36) $\pm$ .010 (0.25)

Inches	mm	Inches	mm
.001	0.02	.060	1.52
.002	0.05	.067	1.70
.003	0.08	.100	2.54
.008	0.20	.200	5.08
.038	0.97	.298	7.57
.058	1.47	.375	9.52

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial configurations are for reference purposes only.
4. Configuration of base optional. Dimension .375 (9.52 mm) is the maximum envelope diameter.
5. Connector bodies shall be gold plated in accordance with MIL-G-45204, type II, class I.
6. Series SMC interface shall be in accordance with MIL-STD-348, figure 312.1.
7. Connector bodies shall be silver plated in accordance with MIL-C-39012.

FIGURE 1. General configuration - Continued.

## ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 0 to 4 GHz.

Voltage rating: 335 volts rms maximum at sea level; 85 volts rms maximum at 70,000 feet.

Temperature rating: -65°C to +165°C.

#### REQUIREMENTS:

Dimensions and configuration: See figure 1 and MIL-STD-348.

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque: 16 inch-ounces maximum.

Coupling proof torque: Not applicable.

Inspection conditions: Torque to 35 to 50 inch-ounces.

Mating characteristics: See MIL-STD-348 for dimensions.

Hermetic seal: Not applicable.

Leakage (pressurized connectors): Not applicable.

Insulation resistance: Method 302, test condition B, MIL-STD-202; 1,000 megohms minimum.

Center contact retention:

Minimum axial force: 6.0 pounds from mating end; 4.0 pounds from opposite end.

Torque: 3 inch-ounces.

Solderability <sup>1/</sup>: Method 208 of MIL-STD-202.

Corrosion (salt spray): Method 101, test condition B, MIL-STD-202.

Voltage standing wave ratio (VSWR): Not applicable.

Connector durability:

Insertion and withdrawal force: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet mating characteristics and force to engage and disengage requirements.

<sup>1/</sup> For quality conformance inspection, the test shall be performed in group B following VSWR; test 5 samples with no failures permitted.

Contact resistance (in milliohms maximum).

	<u>Initial</u>	<u>After environment</u>
Center contact:	6.0	8.0
Outer contact:	1.0	1.5
Braid to body:	Not applicable	Not applicable

Dielectric withstanding voltage: Method 301 of MIL-STD-202; 1,000 volts rms at sea level.

Vibration, high frequency: Method 204, test condition D, MIL-STD-202.

Shock (specified pulse): Method 213, test condition C, MIL-STD-202.

Thermal shock: Method 107, test condition B, MIL-STD-202.

Moisture resistance: Not applicable.

Corona level: Not applicable.

RF high potential withstanding voltage:

Voltage and frequency: 600 volts rms at 5 MHz.

Leakage current: Not applicable.

Cable retention force: Not applicable.

Coupling mechanism retention force: Not applicable.

RF leakage: Not applicable.

Insertion loss: Not applicable.

Part or Identifying Number (PIN): M39012/133- (dash number from figure 1).

Group qualification: See table I.

NOTE: This specification sheet supersedes DESC drawing 85139 when a QPL source is obtained.

TABLE I. Group qualification and retention testing.

Group	Submission and qualification of any of the following connectors 1/	Qualifies the following connectors
1	M39012/133-0001 M39012/133-0002 M39012/133-0003 M39012/134-0001 M39012/134-0002 M39012/134-0003	M39012/133-0001 M39012/133-0002 M39012/133-0003 M39012/134-0001 M39012/134-0002 M39012/134-0003

II	M39012/133-0004	M39012/133-0004
	M39012/133-0005	M39012/133-0005
	M39012/133-0006	M39012/133-0006
	M39012/134-0004	M39012/134-0004
	M39012/134-0005	M39012/134-0005
	M39012/134-0006	M39012/134-0006

- 1/ For qualification retention, where more than one part is listed in a group in this column, data may be supplied on any of these parts in order to retain qualification for those parts in the corresponding right hand column. The part used for qualification retention does not have to be the part initially qualified.

Revision letters are not used to denote changes due to the extensiveness of the changes.

#### CONCLUDING MATERIAL

#### Custodians:

Army - CR  
Navy - EC  
Air Force - 85  
NASA - NA

#### Preparing activity:

Army - CR

#### Agent:

DLA - ES

#### Review activities:

Army - AR, AT, MI  
Navy - AS, MC, OS, SH  
Air Force - 19, 99

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